

SCOPE OF WORK		October 2nd, 2009	
City of Milwaukee: 2808 W. Wells St.		Rehab Specialist:	
() Home	Prior version dates:	Hamid Sarlati	286-5657
() Work		Loan Officer:	
First inspection date: Friday, September 25th, 2009			
Both the "Rehabilitation and Technical Specifications and Performance Standard for the City of Milwaukee - February, 2006" and the "NIDC Addendum to Specifications," dated 7/9/09, 8/23/07 & 5/13/08, are incorporated into this scope by reference. These items provide an of materials requirements & performance expectations. Updated copies can be obtained from NIDC @ 809 N Broadway-Room 104-1st Flr.			
Standard Window Treatment: Any task that disturbs a previously painted surface shall be performed by properly certified personnel and requires Milwaukee Health Department notification. Standard window treatment and window replacement shall be performed by properly certified personnel and requires a Milwaukee Health Department permit.			
Miscellaneous: The contractor is responsible to field verify all measurements, the amount of materials needed, and the number of windows in the building. If any item in this scope calls for a certain manufacturer, model number, or approved equivalent of a particular item, and that item is to be substituted, both NIDC and the owner must approve the substitution in writing as a part of the contract.			
1	GENERAL EXTERIOR	Code	Cost Est
2	SITE		
3	Install asphalt for driveway and garage approach approximately 200 sq yards (common with 2808 W. Wells)	PR	
	Replace the rear door concrete approach and apron to eliminate trip hazards	PR	
4	GARAGE (Common with 2808 W. Wells)		
5	Repair the wood siding as needed	PR	
6	Paint the wood surfaces include soffits and fascia	PbN	
7	PORCHES		
8	Replace front porch skirting	PR	
9	Repair the side porch (east) skirting	PR	
10	Repalce the front, side and rear porch porch steps handrails per code	PR	
11			
12	HOUSE		
13	Repalce door bells with cordless door bells	PR	
14	Tuckpoint foundation as needed	PR	
15	Insert screen windows where missing	PR	
16	Tuckpoint chimney and insptall chimney cap	PR	
17	Repair defective windows, replace broken window panes	PR	
18	Repair eaves, trims, siding as needed, include exterior window sills, soffits and fascia	PR	
19	Paint exterior wood siding and trims, include soffits, fascia, trims, porches etc.	PR	
20	Seal downspouts to receivers	PR	
21	Replace all storm/screen doors for exterior doors	PR	
22			
23	GENERAL INTERIOR		
24	Provide all the required architectural drawings and permits, include certificate of appropriateness from the Historic preservation department	PR	
25	Repair drywall and/or repair plaster as needed	PR	
26	Paint all interior	PR	
27	Repair all electrical to working condition, include all the electrical fixtures. Check the existing electrical work for code compliance	PR	
28	Repair all plumbing to working condition. Check the existing plumbing for code compliance, eliminate all the code violations	PR	
29	Repair and/or replace defective mill work	PR	
30	Eliminate one extra furnace. Check the remaining one for proper functioning, repair if needed	PR	

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City of Milwaukee: 2808 W. Wells St.			
31	Replace water heater with high efficiency side vented water heater	PR	See Energy Report
32	Install floor covering for the entire interior areas.	PR	
33	Provide and install plumbing fixtures as needed	PR	
34	Install wall and base cabinets in the kitchens as needed	PR	
		Sub-Total	35,875
ENERGY PERFORMANCE PROGRAM			
	Please see the attachments		6,623
	Energy Performance Program Rebate		-3,000
		TOTAL	39,498
PR	Program Requirement		
PbA	Lead Abatement Permit Required		
PbN	Lead Abatement Notification.		
None	Not required per program and/or code		
Prepared by:		Date:	
Owner Approval:		Date:	



Badgerland Home Consultants, LLC

23 Park Ridge Dr.

Stevens Point, WI 54481

888-229-0488

WISCONSIN



September 30, 2009

On September 25th , 2009 I conducted an energy audit on the home located at 2808 W Wells Street, Milwaukee, WI. I found that by doing the following energy efficient upgrades to the property, the home would qualify for the \$3000 Home Performance Reward for each of the living units by achieving a ratings score of less than 80.

1. Install a set back thermostat for the heating system.
2. An additional 10 inches of cellulose insulation needs to be blown into the attic.
3. The foundation walls need at least an R5 insulation level. The most cost effective method of achieving this may be to place R5 Thermax sheets on the inside of the foundation walls.
4. Replacing the windows with windows that are rated at least .31/.29.
5. Air sealing various air infiltration areas will be necessary. The home would need to be improved to an air infiltration number of 2130 cfm. Air sealing the areas in the basement where the plumbing lines go up into the home and the area around the chimney in the basement that is seen in the attached photos will be needed.

As per requirements of this program, an additional switch for the quiet bath fan that is required, wired in parallel with the switch located in the bathroom must be installed. The water heater must be changed to a direct vent or power vented unit.

An additional \$1000 in Cash Back Rewards may be available from Home Performance with ENERGY STAR if all of the recommended measures are completed.

Refer to the attached Rem Report for more detailed information regarding cost estimates and potential pay back numbers.

Please keep in mind that the enclosed cost estimates may not be close to the actual bid numbers that contractors may submit for this project. Going forward, when bids begin to come in for this and other projects, I will be able to provide better and more accurate estimates from reviewing these submitted bids.

Please call if you should have any questions and let me know when the work is completed and I will be out to retest the home.

Sincerely,

Dale Bates
Badgerland Home Consultants

IMPROVEMENT ANALYSIS REPORT

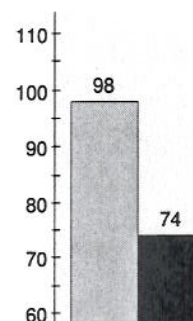
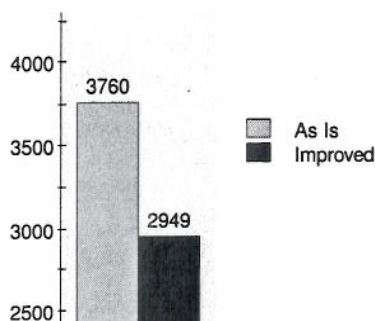
Date:	September 29, 2009	Rating No.:	105-0961
Building Name:	105-0961	Rating Org.:	Badgerland Home Consultants
Owner's Name:	City of Milwaukee NIDC	Phone No.:	715-254-0886
Property:	2808 W Wells	Rater's Name:	Dale Bates
Address:	Milwaukee, WI 53208	Rater's No.:	105
Builder's Name:			
Weather Site:	Milwaukee, WI	Rating Type:	As Is
File Name:	105-0961 Milw NIDC.blg	Rating Date:	9/28/09

Energy Costs (\$/yr)

Total Costs (\$/yr)

HERS Index

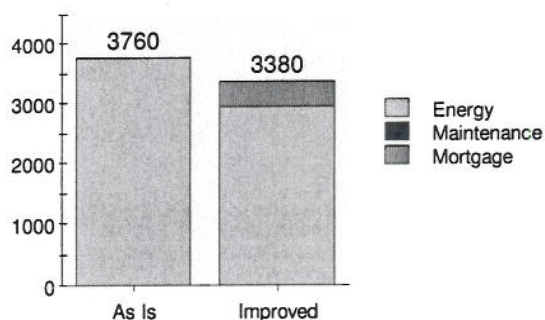
End-Use	As Is	With All Improvements	Savings
Heating	2132	1363	769
Cooling	0	0	0
Hot Water	325	284	41
Lights and Appliances	1065	1065	0
Photovoltaics	-0	-0	0
Service Charge	239	239	0
TOTAL	3761	2951	810



Information For Lenders and Appraisers

Installed Cost of Improvements (\$)	6623
Cost Weighted Life of Measure (Years)	24
Mortgage Term (Years)	30
Discount/Mortgage Rate (%)	5.000
Present Value Factor	13.7
Expected Annual Energy Savings (\$)	810
Expected Annual Maintenance Costs (\$)	0
Expected Annual Savings (\$)	810
Increased Annual Mortgage Costs (\$)	431
Present Value of Savings (\$)	11059
Expected Annual Cash Flow (\$)	379

Cost Comparison (\$/yr)



IMPROVEMENT ANALYSIS REPORT

105-0961

Page 2

Recommended Improvements

Component	Life	Cost	Yr Savings	SIR	PV	SP	Index
1. Infiltration:	25	600	352	8.3	4366	1.70	89
Existing: 3518-5276/3518-5276 CFM50							
Proposed: 2130.0/2130.0 As Specified							
Measure: Reduce 1000+ CFM50							
2. Thermostat:	18	110	26	2.7	191	4.27	88
Existing: FALSE/FALSE							
Proposed: TRUE/TRUE							
Measure: Programmable Thermostat							
3. Fnd Wall 1: FW1	25	3826	347	1.3	1066	11.02	79
Existing: Un 8" CB							
Proposed: R5 Thermax							
Measure: Add R5 Thermax							
4. Ceiling 1: C1	25	1187	44	0.5	-573	27.24	78
Existing: R-25, Attic							
Proposed: R50 Attic							
Measure: Blow R 51-60 Open							
5. Equip 2: DHW:	15	900	41	0.5	-473	21.89	74
Existing: NG WH .52EF 40Gal R0							
Proposed: NG WH .65EF 40Gal RO							
Measure: Power Vented Water Heater							

Criteria

Ranking Criteria: SIR

Maximum \$ Limit: No Limit

Cutoff: 0

Measures: Interactive

The home's energy efficiency is rated using the HERS Index as defined in the RESNET "Mortgage Industry National Home Energy Rating Systems Accreditation Standards," 2006. An Index of 100 represents a home that meets current energy codes. A lower Index indicates the home uses less energy than a code home, a higher Index indicates the home uses more energy than a code home. The rating considers all energy use in the home. The rating should be used only for comparison, since it assumes average climate and thermostat settings, quantities of hot water, and internal loads for a typical household. Energy costs are based on local energy prices at the time of rating. If energy efficiency improvements are made to the home, or energy prices change significantly, the rating and annual energy costs may change. Although every effort has been made to provide accurate information, this rating does not constitute a warranty, expressed or implied, about the energy efficiency or operating costs of the house. Estimated savings are calculated assuming that the improvements are implemented in the order listed, and in accordance with all local codes and standards. The cost estimates for improvements are established by the local HERS provider.

Home Energy Retro-Fit

City of Milwaukee NIDC
2808 W Wells
Milwaukee, WI 53208

by:
Dale Bates
Badgerland Home Consultants
715-254-0886

September 29, 2009

Home Energy Retro-Fit

The Home Energy Retro-Fit report lists changes, or retrofits, that you can make to your home to save energy and money. Acting on the energy retrofit recommendations will make your home more comfortable, more valuable, and more affordable.

Badgerland Home Consultants recommends these retrofits, based on data gathered in a detailed inspection of your home. If you desire more detail on the retrofits or the cost estimates, contact Badgerland Home Consultants, which provided you this service.

Energy Retro-Fit Table

The Energy Retro-Fit table shows a package of energy retrofits for you to consider. Both the individual and total annual savings are based on the whole package. You can see how good of a financial choice these measures are by looking at the last column.

Feature to improve	Change from	Change to	Estimated cost	Annual savings	SP*
Infiltration:	3518-5276/3518-5276 CFM50	2130.0/2130.0 As Specified	\$600	\$352	1.70
Thermostat:	FALSE/FALSE	TRUE/TRUE	\$110	\$26	4.27
End Wall:	Un 8" CB	R5 Thermax	\$3826	\$347	11.02
Ceiling:	R-25, Attic	R50 Attic	\$1187	\$44	27.24
Equipment:	NG WH .52EF 40Gal R0	NG WH .65EF 40Gal RO	\$900	\$41	21.89
Total			\$6623	\$810	
Monthly Finance Cost**, Monthly Savings			\$36	\$67	

* SP is Simple Payback: the number of years until the retrofit has paid for itself.

** The monthly finance cost is the monthly payment, including interest, that will pay for all the tabulated improvements when financed with a 30-year mortgage at 5.00%.

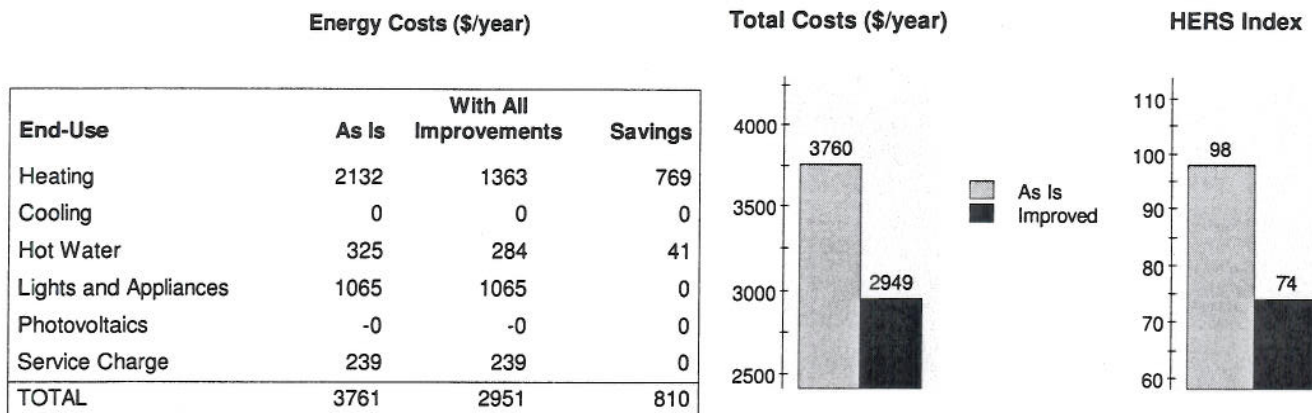
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Energy Costs by End-Use

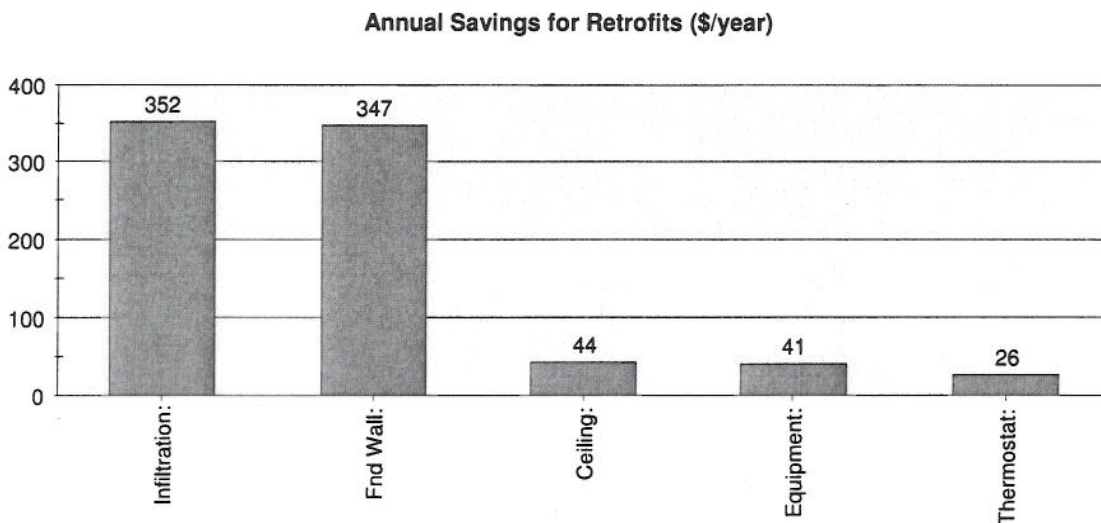
The Energy Costs table compares the "before" and "after" annual energy costs to show energy cost savings. It groups retrofits by "end-uses," which are broad categories of how energy is used (or generated) in a home. Note that Photovoltaic panels (PV) generate energy, so as a result this "end-use" shows negative costs, if present.

The Total Costs bar chart gives a visual sense of how the annual operating costs of your house could change by incorporating all the listed energy retrofits.

The HERS Index bar chart provides a snapshot of your home's energy efficiency before and after retrofits. The HERS Index shows the energy efficiency rating of your home, similar to the way a miles per gallon rating shows the efficiency for a car.



The bar chart below displays the annual energy cost savings (\$ per year) associated with the energy retrofits you choose. Some retrofits interact with one another, and the total savings offered by each can change if the package of combined retrofits changes. For example, if you increase the insulation of your home, the energy savings you can gain from installing a more efficient furnace will be less than if you only install the furnace. However, the total savings will be greater if you choose both retrofits.



WX WORK ORDER

Building Name:	105-0961	Date:	September 29, 2009
Occupant:	City of Milwaukee NIDC	Cond Area (sq ft):	3096
Property:	2808 W Wells	Cond Volume (cu ft):	27864
Address:	Milwaukee, WI 53208	Number of Stories:	2
Phone:	414-268-8606	Surface Area (sq ft):	6087

General Information

This section of the report can be customized by opening up the wx.def file with an editing program and adding whatever text is appropriate. The wx.def files resides in the same directory as the program executable. The default is: C:\Program Files\Architectural Energy Corporation\Rem Rate\.

MEASURE	MEASURE DESCRIPTION	AFFECTED AREA	QUANTITY
Reduce 1000+ CFM50	Seal air leaks and bypasses	Infiltration:	3096 sq ft
Programmable Thermostat	Install programmable setback thermostat	Thermostat:	Each
Add R5 Thermax	Install R5 Thermax on interior of foundation walls	End Wall 1: FW1	1192 sq ft
Blow R 51-60 Open	Blow R51-60 into open attic	Ceiling 1: C1	1032 sq ft
Power Vented Water Heater	Water Heater	Equip 2: DHW:	1 Each